

# North Dakota Winter Outlook

## December 2012 – February 2013



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# Winter Outlook Highlights

December 2012 – February 2013



- El Niño no longer projected to develop.
  - The El Niño Watch has been cancelled.
  - Neutral El Niño Southern Oscillation (ENSO) conditions are projected to continue through summer of 2013.
- For the December 2012 – February 2013 winter season...
  - Most of North Dakota is favored for colder than normal temperatures; the southwest is favored for near normal temperatures.
  - North Dakota is favored for near normal precipitation.

# Climate Normals December - February



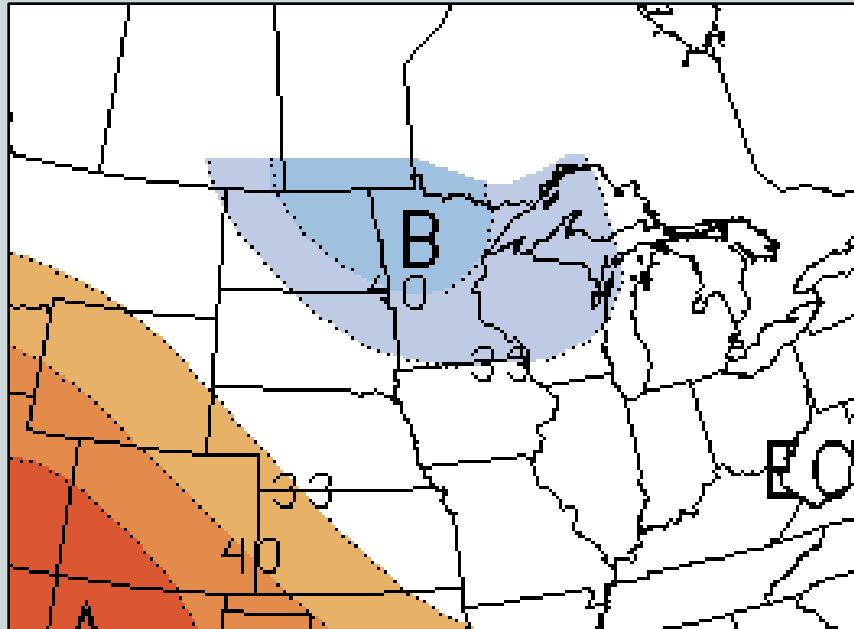
	<b>Average Temperature</b>	<b>Precipitation</b>	<b>Snow</b>
<b>Bismarck</b>	15.6 °F	1.43"	26.3"
<b>Williston</b>	13.8 °F	1.60"	25.2"
<b>Jamestown</b>	13.1 °F	1.25"	25.3"
<b>Minot</b>	14.8 °F	1.29"	23.4"
<b>Dickinson</b>	18.2 °F	0.87"	15.6"

# Winter Outlook

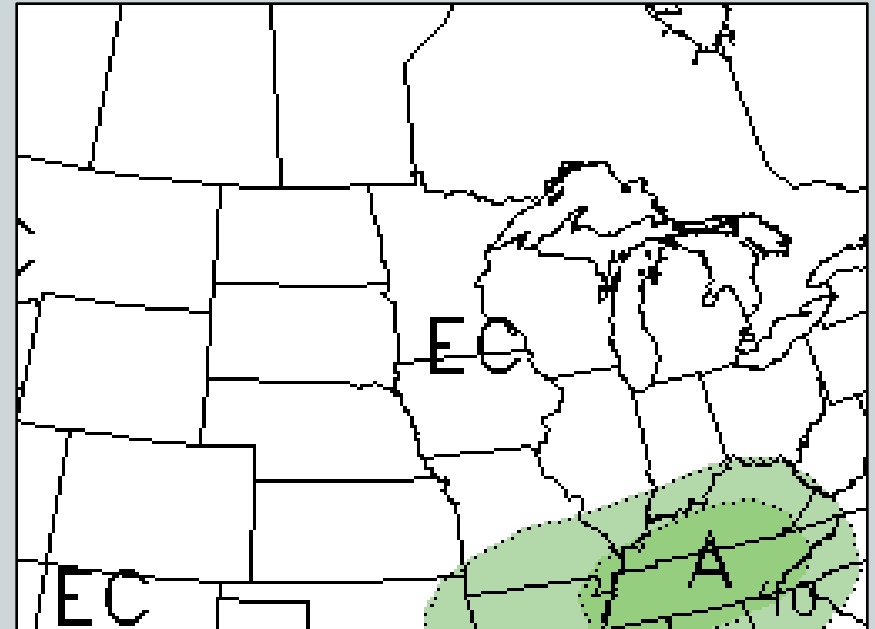
(December 2012 – February 2013)



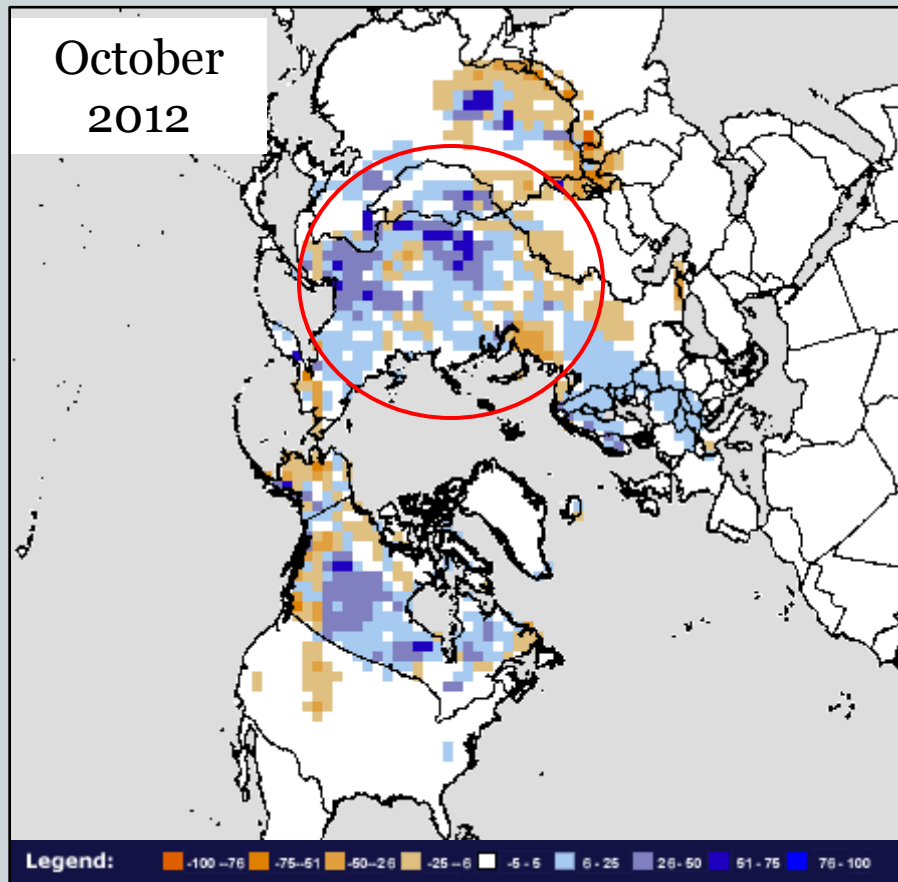
## Temperature



## Precipitation



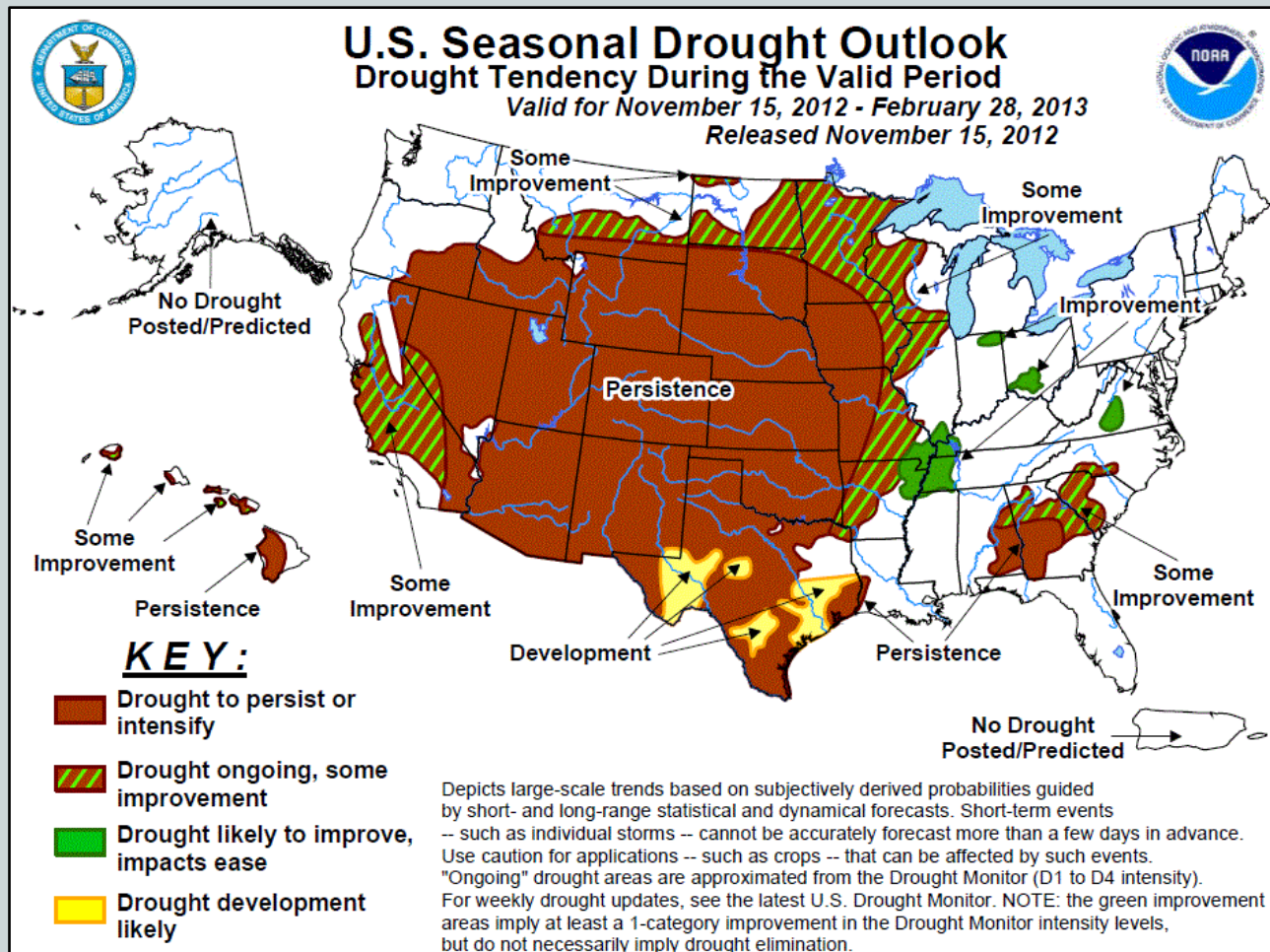
# Influence of the Arctic Oscillation (AO)



- Above normal Eurasian snowfall (circled in red), which has been linked to the negative phase of the arctic oscillation, is already in place.
- The negative phase of the arctic oscillation correlates to colder than average winter temperatures in North Dakota.

# Seasonal Drought Outlook

## November 15, 2012 – February 28, 2013



# Winter Outlook Summary

December 2012 – February 2013



- El Niño no longer projected to develop.
  - As a result, the El Niño Watch has been cancelled.
  - Neutral El Niño Southern Oscillation (ENSO) conditions are projected to continue through summer of 2013.
- An extreme example of persistently negative arctic oscillation was seen during the 2009-10 winter season.
  - Bismarck observed above average snowfall and below normal temperatures.
- For the December 2012 – February 2013 winter season...
  - Most of North Dakota is favored for colder than normal temperatures; the southwest is favored for near normal temperatures.
  - North Dakota is favored for near normal precipitation.